

Thurston County Stormwater Utility
December 2020 Newsletter

SPLASH





Message from the Water Resources Manager

Among the many benefits for those of us who live, work and play in Thurston County is the abundance of water resources. The many streams, lakes and underground aquifers, along with the beauty of Puget Sound, make Thurston County a special place to live.

The large amount of rain we receive each year helps keep our forests green and streams flowing. But too much rain can also create challenges. Big storm events can cause flooding on roads, damage to property and endanger lives. Stormwater runoff can also carry pollutants from streets, roofs, sidewalks and yards into underground aquifers, which we depend on for our drinking water, or into streams and rivers that we play in and that support fish and wildlife.

The Thurston County Storm and Surface Water Utility plays an important role in managing stormwater in our community. The employees that make up the Utility are dedicated to keeping Thurston County residents and businesses safe and our water resources healthy and clean.

We are pleased to present the 2020 edition of *Splash*, the newsletter of the Storm and Surface Water Utility. The following pages of this newsletter highlight some of the activities and projects that your utility did in 2019 to meet state and federal stormwater regulations and manage stormwater for your benefit and the benefit of all Thurston County residents. This newsletter also highlights ways you and your neighbors can get involved managing stormwater to reduce localized flooding and protect local water resources.

If you have any questions or would like more information about the Storm and Surface Water Utility, please contact us at 360-754-4681 or visit **ThurstonStormwater.org**.



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**? DID YOU
KNOW**

Most passenger cars
can stall or lose
control in just 6
inches of water!

Turn Around, Don't Drown

Do not attempt to drive through a flooded road.

Find out if you live in an area prone to flooding.

Thurston County uses FEMA's (Federal Emergency Management Agency) flood insurance rate maps. You can go to the county's GeoData website, **Geodata.org**, to look up flood risk for your parcel, or contact the County's Floodplain Manager, Tim Rupert, at 360-867-2123.

Check rainfall, stream and groundwater levels.

Find current and historic levels of rainfall and the status of local streams and groundwater levels by visiting Thurston County's monitoring website at **Water.ThurstonStormwater.org**.

Stay in the Know: Sign up for severe weather alerts.

The National Weather Service sends warnings for tsunamis, tornadoes, flash floods, extreme winds, blizzards, ice storms and more. You can receive Wireless Emergency Alerts (WEA) on your cell phone. The service is free and automatic, if your cell phone is WEA-capable. For more information on Wireless Emergency Alerts on your cell phone visit **www.co.thurston.wa.us/em/alerts**.

What to Do with All That Rain!

Just one storm can dump millions of gallons of water on our county.

When it rains, water cannot soak through hard surfaces like roads, rooftops, parking lots, sidewalks or even yards with compacted soil. As this rainwater flows over hard surfaces, it collects things you wouldn't want to touch or drink. Things like oil from leaking cars, chemicals from lawns and gardens, and animal (or sometimes human) waste. Even dirt and dead plants can create problems as they are carried to streams and lakes by stormwater runoff.

How many **gallons of stormwater** run off from

1 inch
of rain

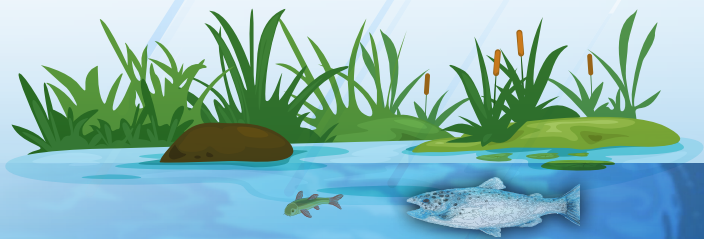


Source: Penn State Extension

Our job is to help manage this “stormwater runoff.” We do this by building and maintaining stormwater systems, including stormwater ponds, ditches, swales and storm drains, that help move stormwater off our roads before it damages homes or businesses. We also help make sure that stormwater systems are built and properly maintained in neighborhoods. (See pages 8–9 to learn more about stormwater ponds, ditches and swales.)

In addition, we work to help keep streams, lakes and drinking water healthy and clean. We do this by:

1. Monitoring streams and groundwater.
2. Building and maintaining county stormwater systems that help filter pollution.
3. Replacing older stormwater systems with improved systems that help filter pollution.
4. Helping residents and businesses learn how to:
 - a. Prevent stormwater pollution, and
 - b. Keep their private stormwater systems working well.



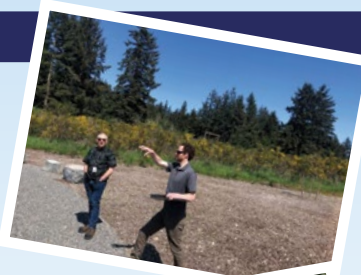
Meet the Stormwater Utility Team!

It takes a team of dedicated staff to manage stormwater runoff in Thurston County.

Technical Services Team

The Technical Services team designs and manages stormwater systems for the County. They also provide technical assistance to residents and businesses on how to manage stormwater. In addition, this team spearheads policy development and code updates for the stormwater utility.

The Technical Services team also plans and designs upgrades and repairs to the public stormwater systems. (See page 8 to learn about the Albany Street Stormwater Pond upgrade.)



Stormwater Operations & Maintenance Team

The Stormwater Operations & Maintenance team helps keep the public network of storm drains, ditches, pipes, ponds and other related stormwater facilities in good working condition. They also map and inspect the public stormwater systems and make recommendations for cleaning and maintaining them.

In addition, the Operations and Maintenance Team also:

- Inspects private stormwater systems to make sure they are built properly.
- Provides technical assistance to help residents and businesses learn how to inspect and care for their private stormwater systems.
- Responds to spills that could get carried into the public stormwater system.



Community Planning Team

The Community Planning Team provides many services related to stormwater management. The Water, Data and Hazards program gathers important information about weather and water, including rainfall, stream flows, groundwater and water quality.

This data is used to:

- Track rainfall patterns to help size and design stormwater systems.
- Make sure septic systems are far enough away from groundwater flows.
- Track and prevent flooding in streams.
- Track and prevent pollution from entering streams and groundwater.
- Guide development and policies to prevent flooding, keep our drinking water clean and keep streams and lakes healthy for future generations.

The Community Planning Team also reviews development proposals to keep people and property safe from flooding and other hazards.

The community engagement program helps citizens get involved through education and volunteer programs, like Stream Team, and through the Storm and Surface Water Advisory Board. To learn more about the County's Stormwater Management Program, visit

<https://www.thurstoncountywa.gov/sw/Pages/regs.aspx>.



Stream Team volunteers help plant trees along streams.

More **BANG** for your **BUCK!**

2019 Stormwater Utility Highlights

We know that preventing flooding and keeping water clean is important to you, your family and our community. We work year-round to ensure public and private owned stormwater systems help protect us from roadway flooding and help keep our local waterways clean.

Here's how we put your stormwater utility fees to work in 2019*.

Weather & Water Monitoring



18

Weather stations

14

Stream flow sites

41

Groundwater monitoring sites

36

Water quality sites

If your fee is \$100 per year, you get all this and more for

\$8.33
per month!

Compare with other costs:



\$15.00
5 gallons
of gas



\$13.00
1 lb.
coffee



\$12.00
1 movie
theater
ticket

\$0.12



\$0.13



\$0.14



Planning & Risk Reduction



44

Private stormwater systems
inspected while being built

41,311

Property owners protected

10,043

Utility locates processed



Upgrades & Repairs to Public Systems

1,459

New stormwater facilities mapped

1

Capital facilities project installed (See the Albany Street Stormwater Pond article on page 8.)

Community Engagement & Technical Assistance



3,583

Students participated in sponsored stormwater education activities

480

Volunteers

12,027

Private stormwater facilities (stormwater, swales, etc.) inspected

Public Roadside Drainage & Emergency Response



11,846

Public stormwater facilities (storm drains, ditches, etc.) inspected

749

Storm drains cleaned

18,977

Feet of stormwater pipes and culverts cleaned

64

Spills responded to

**The 2020 edition of SPLASH is arriving later than usual in your mailbox. In SPLASH we share highlights of what we accomplished the previous year. Highlights for 2020 will be featured in the 2021 edition of SPLASH.*

What is a Stormwater Pond?

Engineers design stormwater ponds to collect stormwater runoff from hard surfaces, such as sidewalks, roads, rooftops, lawns and parking lots.

Some stormwater ponds often look dry because they are designed to collect and temporarily hold onto water. ▶

Water from these dry ponds eventually flows out through pipes or ditches into streams, lakes or even Puget Sound.

Some stormwater ponds soak water into the ground.

Engineers design some stormwater ponds, called infiltration ponds, to soak the water they collect into the ground. A special mix of soil, plants and microbes in the soil help filter out pollutants as the water soaks in.

The filtered water flows underground and refills aquifers and eventually streams. Groundwater is an important source of clean, cool water for streams—especially during our hot, dry summer months!



? **DID YOU KNOW**

Most of our drinking water in Thurston County comes from underground aquifers.

IN THE SPOTLIGHT! Albany Street Stormwater Pond

The County designed the Albany Street Stormwater Pond to reduce roadway flooding. Before the County built this stormwater facility, rain caused nearby roads to frequently flood. Now, newly installed underground pipes carry runoff from nearby neighborhoods to the stormwater pond.

The Albany Street Stormwater Pond does more than collect stormwater. It soaks stormwater into the ground. As the water soaks in, the special soil (and microbes in the

soil) filter out stormwater pollutants, so cleaner water flows underground to help refill the drinking water aquifer and even the Black River!

Over the course of one year, this pond will collect **more than 7 million gallons** of stormwater. That's enough water to flood a football field 12 stories high!



Frequently Asked Questions about Stormwater Ponds & Ditches

► Why are stormwater ponds so big?

Stormwater ponds must be large enough to hold stormwater from very large storms, which helps prevent flooding on roads and damage to homes and property.

► Why does my pond have water in it all year?

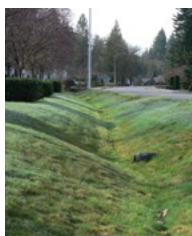
Some stormwater ponds hold water all year long. These “wet” ponds filter pollutants by holding on to the water. Dirt and other heavy substances sink to the bottom of wet ponds, leaving clean water to flow out.



► Are ditches part of a stormwater system?

Yes! Most of the ditches you see along roads are part of the stormwater system. Some ditches have steep sides and are mainly designed to carry water off the road.

Wide, shallow, grass-lined ditches are called swales. Swales collect runoff and soak it into the ground. Swales are usually planted with grass and a special mix of soil to help filter dirt and pollution as the water soaks in.



► Who maintains stormwater ponds and ditches?

The County maintains public stormwater systems, such as ditches, swales and storm drains located along county roads.

Residents and businesses maintain most private stormwater systems located in neighborhoods and business parking lots. County staff inspect private stormwater systems each year, then send out reminders when it's time for residents and businesses to send in their inspection and maintenance forms.

How Can I Learn More About Inspecting & Maintaining My Neighborhood's Stormwater Systems?

► Find helpful resources at **Help. ThurstonStormwater.org**

► Register for an Online Workshop in 2021

The County will be co-hosting two online workshops in 2021. The online workshops will help you learn about the different types of stormwater facilities you may have in your neighborhood or business, such as storm drains, stormwater ponds, and inlet and outlet pipes. The workshops also cover how to inspect and maintain these facilities.

Property managers and contractors hired to maintain stormwater facilities will find these workshops helpful too!

If you are interested in participating in one of these workshops in 2021, sign up for our “Pond Maintenance Info” email list at **Join. ThurstonStormwater.org**.

► Request a technical assistance visit at **Consult. ThurstonStormwater.org** or call **360-754-4681**.

IMPROVING OUR COMMUNITY!

New Project will Reduce Flooding in Boston Harbor

As neighbors know all too well, Boston Harbor Rd NE often floods between Boston Harbor Extension NE to 75th Way. The roadway can flood and water can flow into garages and homes. The County conducted a drainage study in 2019 to look for the cause of the flooding. Undersized culverts under driveways was identified as the primary source of flooding. In 2020, the County will work on designing a project to improve stormwater facilities in this neighborhood. The project will:

- Replace the current undersized driveway culverts with larger capacity culverts.
- Improve roadside ditches that will also get rid of steep drop offs.
- Replace one outfall that flows into Puget Sound, which is causing erosion.

Once completed, this project will reduce roadway flooding, enhance safety and protect private property. To learn more about this project, visit https://www.co.thurston.wa.us/publicworks/Project_BostonHarborStormwater.html.

For updates on stormwater or neighborhood projects, visit Join.ThurstonStormwater.org.



HOW CITIZENS GUIDE OUR WORK

9 residents
volunteer to represent you on the

Storm & Surface Water Advisory Board (SSWAB)



SSWAB has one vacancy for an at-large position. To learn more about SSWAB and to apply for the vacancy, visit SSWAB.ThurstonStormwater.org.

FREE PET WASTE STATION FOR YOUR NEIGHBORHOOD!

Dog poop is loaded with parasites, viruses and bacteria. Stormwater can carry dog poop (and the stuff in it that can make us sick) into streams and lakes—where people swim and fish—and estuaries—where it can pollute shellfish. So please, don't let your neighborhood pooches pollute!



For more information or to apply for a pet waste station visit Pets.ThurstonStormwater.org, or email ann.marie.pearce@co.thurston.wa.us.

REPORT A SPILL OR ILLICIT DISCHARGE!

(All reporters may remain anonymous.)

1. Thurston County Stormwater Utility Spill Reporting Hotline, **(360) 867-2099**
2. Hazardous Waste Hotline, **(360) 867-2664** (Staffed Monday – Friday, 8 a.m. – 5 p.m.)
3. Report online at ThurstonStormwater.org and click on *Report Dumping & Spills*

Illicit Discharge: Any discharge to a municipal stormwater system – storm drains, pipes, and ditches –not composed entirely of stormwater. Examples: seepage from a septic tank, spilled or dumped oil or paint, household waste or water drained from a pool or spa.

Are You Ready for the Rain?

Just like it's important to make sure your car is running well before a long trip, it's also important to make sure your home and neighborhood stormwater facilities are in tip-top shape to handle the winter rains!

1. Inspect your neighborhood stormwater facilities to see if they need to be cleaned or repaired.

The County sends out inspection forms in early spring each year. The inspection forms include a list of all the stormwater facilities in your neighborhood, such as storm drains, inlet and outlet pipes, stormwater ponds, etc. The forms are sent to a representative in your neighborhood, such as an HOA member.

Visit Help.ThurstonStormwater.org to get info on how to inspect and maintain your neighborhood's stormwater facilities, or to find a knowledgeable contractor.

To request copies of inspection forms for your business or neighborhood, or to request technical assistance, email stormwater@co.thurston.wa.us or call 360-754-4681.



2. Rake leaves off of storm drains.

They don't call it fall for nothing! As leaves fall, they can cover storm drains and prevent stormwater from flowing into them. This can cause flooding on our roads.

If you feel safe enough, you can rake leaves off your storm drains. Grab a rake, gloves, bright clothing and someone to help keep an eye out for cars.

Tip: Spread leaves around trees and shrubs for use as compost.



3. Clear leaves from your gutters and rake leaves in your lawn.

Put raked leaves around trees and shrubs in your yard. The leaves will keep the soil warmer around your plants this winter. They will also provide your trees and shrubs with food as they decompose.

4. During a rain storm, check around your home to see how stormwater drains off your property and nearby road.

Request a free stormwater drainage consult at Consult.ThurstonStormwater.org.

We just had a storm. Now what?

After each major storm, be sure to check your local stormwater facilities (ponds, swales and drains) to avoid neighborhood flooding or costly repairs.

What to look for:

- Sediment build up or soil erosion
- Broken or clogged pipes (inlets and outlets)
- Debris or other damage

Report any stormwater facility damage to your neighborhood or homeowner's association (HOA). In most cases, it is the responsibility of the neighborhood or HOA to properly repair the damage.





STANDARD
US POSTAGE

PAID

THURSTON COUNTY
CENTRAL SERVICES

Thurston County Stormwater Utility
2000 Lakeridge Dr. SW Bldg. 4, Room 100
Olympia, WA 98502



Follow us on



ThurstonStormwater.org

Emergency Hotline

(360) 754-4681, ext. 1

to quickly report flooding or hazardous spills on County roads

Maintenance Info

(360) 754-4681, ext. 2

to help you care for your stormwater ponds and other facilities

Billing Questions

(360) 754-4681, ext. 3



Call 811
before you dig!

Main Office

(360) 754-4681 ext. 0